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PRC 153313

May 31, 1993

Mr. Jamey Bell
Work Assignment Manager
Site Assessment Section (HSM-5J)
U.S. EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: EPA Contract No. 68-W8-0084
Work Assignment No. 31-5JZZ (49)
Draft Site Evaluation Report for the
Sauget Area 1 Site
Sauget, Illinois
Multiple U.S. EPA ID Nos.

Dear Mr. Bell:

PRC Environmental Management, Inc. (PRC), today submitted an original copy and a photocopy of the draft site evaluation report for the above-referenced site to Mr. Alan Altur, the Site Assessment Manager (SAM) for Illinois. Attached to the original copy of the site evaluation report is an approval page. After U.S. Environmental Protection Agency (EPA) and state representatives have reviewed the site evaluation report, you or the SAM will complete the approval page and return the original to PRC. Receipt of the approval page will formally indicate that EPA and state representatives have reviewed the site evaluation report and will initiate discussion between PRC and the SAM to establish a delivery date for the draft HRS scoring package. Any EPA and state comments on the site evaluation report will be discussed with the SAM and incorporated into the draft HRS scoring package. As we discussed on the telephone, preliminary hazard ranking system (HRS) scoresheets are not included because additional information is required to better establish particular scoring elements.

If you have any questions about this submittal, please call me at (312) 856-8797.

Sincerely,

Eric S. Morton

Eric S. Morton
Contractor Project Manager

Attachment

cc: Alan Altur, EPA Illinois SAM (with two enclosures)
Carl Norman, EPA Project Officer (letter only)
Brigitte Manzke, EPA Contracting Officer (letter only)
Majid Chaudhry, PRC Program Manager (letter only)

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PRC

SITE EVALUATION REPORT
FOR THE
SAUGET AREA 1 SITE
Multiple U.S. EPA Identification Numbers

DRAFT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

Work Assignment No.	:	31-5JZZ
EPA Region	:	5
Date Prepared	:	May 31, 1993
Contract No.	:	68-W8-0084
PRC No.	:	030-00314903
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1.0 INTRODUCTION

Under Contract No. 68-W8-0084, Work Assignment No. 31-5JZZ, PRC Environmental Management, Inc. (PRC), has evaluated the Sauget Area 1 site in Sauget, St. Clair County, Illinois, as a potential candidate for the National Priorities List (NPL). Using the Hazard Ranking System (HRS), PRC evaluated the site to determine if, or to what extent, it poses a threat to human health and the environment. This site evaluation report presents the results of PRC's preliminary evaluation and summarizes the site conditions and targets pertinent to the migration and exposure pathways associated with the Sauget Area 1 site. Information was obtained from U.S. Environmental Protection Agency (EPA), Illinois Environmental Protection Agency (IEPA), Illinois Department of Public Health, and Illinois State Geological Survey files. Based on the information currently available, the Sauget Area 1 site will receive an HRS score of 28.50 or greater. PRC recommends that an HRS package be prepared for the Sauget Area 1 site.

This report has five sections, including this introductory section. Section 2.0 describes the site and discusses site operations and site history. Section 3.0 describes previous investigations conducted at the site. Section 4.0 provides information about the four migration and exposure pathways (groundwater migration, surface water migration, soil exposure, and air migration) that can be scored. Section 5.0 presents PRC's conclusions and recommendations based on the site evaluation.

2.0 SITE DESCRIPTION AND HISTORY

The Sauget Area 1 site encompasses most of the village of Sauget, Illinois, as well as areas in the village of Cahokia, Illinois. Both of these municipalities are located in St. Clair County. The village of Sauget is directly across the Mississippi River from St. Louis, Missouri, and south-southwest of East St. Louis, Illinois. Cahokia, Illinois, is located southeast of Sauget. Land use near Sauget Area 1 is mixed residential, industrial, and agricultural. Major industrial operations in the area include Big River Zinc Corp.; the Cerro Copper Products, Co. (Cerro Copper); Ethyl Petroleum Additives, Inc. (Ethyl Corp.); Midwest Rubber Reclaiming (Midwest Rubber); and the Monsanto Co. (Monsanto).

The Sauget Area 1 site is an aggregation of nine sources. Six of these are areas adjacent to Dead Creek and the other three sources are made out of segments into which Dead Creek has been divided

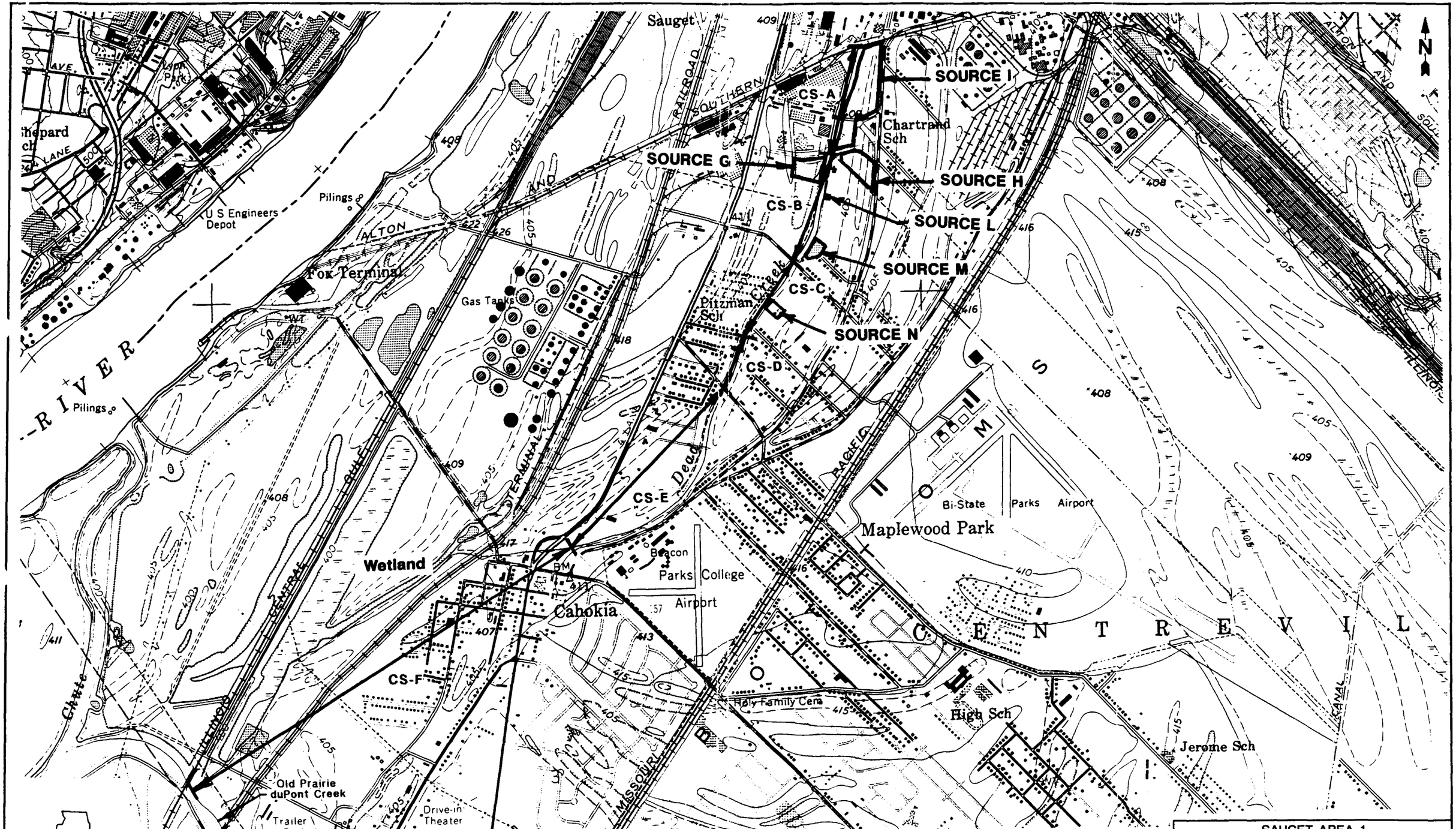
as a result of industrial and residential activities in the area (see Figure 1). The six sources adjacent to Dead Creek have been designated as Sources G, H, I, L, M, and N; historically these same areas are referred to as sites. The EPA and the IEPA requested that PRC not evaluate two additional sources, designated as Sources J and K, located near the Sauget Area 1 site. Therefore, these sources are not further discussed in this report. The five creek segments (CS) associated with Dead Creek are designated as CS-A, CS-B, CS-C, CS-D, and CS-E. CS-A and CS-B are separately considered as sources, while CS-C, CS-D, and CS-E were aggregated into one source called CS-C through CS-E. The locations of the sources associated with Sauget Area 1 are shown in Figure 1.

The Sauget Area 1 sources were aggregated because of their relative proximity, similar and overlapping targets, shared watershed, and similar contamination. Furthermore, some of the sources have the same generators and transporters.

The Sauget Area 1 site has received hazardous waste from industrial operations for the past 70 years. The following paragraphs discuss the history of the sources and creek segments associated with Sauget Area 1. The discussion begins with sources near or at the north end of Dead Creek and proceeds through sources near or at the south end of the creek.

Though shown on the topographic map as a perennial stream, CS-C, CS-D, and CS-E dry out for significant periods of time each year. Therefore, Dead Creek is considered an intermittent stream through these segments. Dead Creek allegedly originated at least 600 feet north of CS-A on property owned by Monsanto; however, the portion of Dead Creek north of CS-A has been filled in. As a result, the creek has no natural headwaters.

Sources I and CS-A are located on property currently owned by the Cerro Copper. Sources I and CS-A are adjacent to each other and are surrounded by an 8-foot chain-link fence that is topped with barbed wire. Source I is a former landfill that occupies 55 acres. Between the 1930s and the 1950s, Source I was reportedly used by Leo Sauget to dispose of various industrial wastes presumably associated with chemical manufacturing. Currently, Cerro Copper parks machinery on the site.



SOURCE: MODIFIED FROM USGS, CAHOKIA QUADRANGLE, 1974

SAUGET AREA 1
SAUGET AND CAHOKIA, ILLINOIS

FIGURE 1
SOURCE LOCATIONS

PRC ENVIRONMENTAL MANAGEMENT, INC.

Source CS-A is approximately 1,900 feet long and extends from the Alton and Southern Railroad on the north to Queeny Avenue on the south. Source CS-A received discharges from Cerro Copper and storm water runoff and industrial and sanitary overflow through the city of Sauget's sewer system. For the purposes of HRS scoring, CS-A is considered a surface impoundment. Prior to the 1950s, a culvert connecting CS-A and CS-B was sealed because of concerns about pollutants in CS-A migrating to the lower portions of Dead Creek. In 1990, Cerro Copper removed part of the contaminated sediment, soil, and water from CS-A. Cerro Copper then placed clean fill in the creek bed. This removal action was undertaken as part of a consent order between the IEPA and Cerro Copper.

Source CS-B extends approximately 1,950 feet between Queeny Ave and Judith Lane. Culverts that previously connected CS-B with CS-A and CS-C appear to have been closed; PRC observed no water movement between CS-B and CS-C. CS-B received contamination flowing south from CS-A, through an outfall from Midwest Rubber, from direct discharge of hazardous waste tanker truck wash waters, and very likely from surface runoff from Sources G and H. For the purposes of HRS scoring, CS-B is considered a surface impoundment.

Sources G, H, L, and M are adjacent to or near CS-B. Source G is located west of Source CS-B and south of Queeny Avenue and the Cerro Copper facility. Leo Sauget allegedly used Source G, which is approximately 4.5 acres in size, between the 1950s and the 1970s to dispose of hazardous wastes. An expanded site inspection (ESI) conducted by Ecology and Environment, Inc. (E&E), detected highly elevated levels of organic and inorganic contamination at Source G. This contamination includes chlorobenzene, ethylbenzene, numerous polynuclear aromatic hydrocarbons (PAH), dichlorobenzenes, trichlorobenzenes, and polychlorinated biphenyls (PCB). As a result, IEPA enclosed the site with an 8-foot chain-link fence in 1987. Currently, the surface of Source G is covered with debris and stressed vegetation.

Source H is located south of Queeny Avenue, between Dead Creek and Falling Springs Road. Source H occupies approximately 5 acres and is well graded and vegetated. It was allegedly used by Leo Sauget to dispose of hazardous waste between the 1930s and the 1950s. Currently, access to Source H is not restricted.

Source L is a backfilled surface impoundment located approximately 700 feet south of Queeny Avenue. It measured about 70 by 150 feet or about 10,500 ft^2. Source L was used by the Waggoner Trucking Company (Waggoner) to dispose of wash water from hazardous waste tankers from 1971 until 1974. When the Ruan Trucking Company (Ruan) purchased the property in 1974, Ruan used the impoundment for the same purposes as Waggoner until sometime in the early 1980s. The impoundment has been filled and is covered by cinders. Currently, Metro Installation (formerly Metro Construction) uses the area to store heavy construction equipment.

Source M is a former sand pit owned by the H.H. Hall Construction Company. The pit is approximately 275 feet by 350 feet and is about 14 feet deep. Currently, the pit is filled with water and is connected to Source CS-B by a channel. While there is no formal documentation of hazardous waste being disposed of at Source M, area residents have reported that wastes were dumped illegally into the pit. Furthermore, sampling has confirmed the presence of hazardous substances in the pit.

Source CS-C through CS-E extends approximately 3,200 feet through residential areas of Sauget and Cahokia. Since the 1940s, this portion of the creek has been the subject of complaints by local residents. Historically, culverts joining CS-C, CS-D, and CS-E were open; thus, water could flow through the creek. Thus, creek segments C through E became contaminated by hazardous substances transported downstream. At some point, however, the culverts between CS-C and CS-D and the northern and southern halves of CS-D appear to have been blocked.

Creek segments C through E are aggregated into a single source based on the analytical results of surface soil samples that establish an area of contamination; contaminants include chlorobenzene, various PAHs, PCBs, and several metals including copper, lead, mercury, nickel, and zinc.

3.0 PREVIOUS INVESTIGATIONS

Multiple site investigations have been conducted at the various sources associated with Sauget Area 1. PRC used the following major investigations for this HRS evaluation:

- ESI, Dead Creek Project Sites at Cahokia/Sauget, Illinois, prepared by E&E for IEPA in 1987
- Site Investigation/Feasibility Study for Creek Segment A, prepared by the Avendt Group for Cerro Copper in 1990
- Screening Site Inspection (SSI), Area 1 Sites, prepared by IEPA in 1991
- Site Investigation for Dead Creek Sector B and Sites L and M, Sauget-Cahokia, Illinois, prepared by Geraghty & Miller, Inc., for Monsanto in 1992

Because of the vast nature of the contamination at Sauget Area 1, the information presented in these reports is summarized in the following paragraphs. Some of the samples most pertinent to the HRS evaluation are discussed in Section 4.0. The site's documentation record will present a more thorough discussion of contamination at Sauget Area 1.

Sampling activities have been conducted at all sources during the above-referenced investigations. Volatile organic compounds (VOC); semivolatile organic compounds (SVOC), including PAHs; PCBs; and pesticides; and metals were all detected above background concentrations in air, soil, surface water, and groundwater samples collected at the sources. Hazardous substances measured at the highest concentrations and detected most frequently include benzene, chlorobenzene, dichlorobenzenes, trichlorobenzenes, PAHs, PCBs, and various heavy metals including copper, lead, mercury, nickel, and zinc.

The highest concentrations of hazardous substances in soil samples were detected in samples collected from Sources G, H, and I. Source G samples contained the highest concentrations of PCBs, with a maximum concentration of 29,000 milligrams per kilogram (mg/kg) of Aroclor 1254. Soil samples collected from Sources L and N and sediment samples collected from Source M, contained lower concentrations of hazardous substances. Similarly, contaminant concentrations in Dead Creek are generally highest at the north end and decrease further south.

In general, analytical results of soil, sediment, and surface water samples demonstrate that hazardous wastes were deposited in sources located near the northern end of Dead Creek or in Sources CS-A and CS-B, and that hazardous substances have migrated downstream into Source CS-C through CS-E.

Sources G and H contain the highest concentrations of hazardous substances in groundwater samples. Air samples collected near Source G indicate that PCBs, lead, and zinc have been released off site from Source G.

4.0 MIGRATION AND EXPOSURE PATHWAYS

This section describes the four migration and exposure pathways associated with the Sauget Area 1 site. Section 4.1 discusses the groundwater migration pathway; Section 4.2 discusses the surface water migration pathway; Section 4.3 discusses the soil exposure pathway; and Section 4.4 discusses the air migration pathway.

4.1 GROUNDWATER MIGRATION PATHWAY

Water intakes on the Mississippi River are the primary sources of drinking water near the Sauget Area 1 site. Residents of East St. Louis, Sauget, Cahokia, Centreville, Alorton, and several other nearby towns and townships are served by a Mississippi River intake located about 3 miles upstream of Sauget.

However, private wells are known to exist within 4 miles of the site. The nearest wells to the Sauget Area 1 sources are about 400 feet from Source M. Four wells on Judith Lane were sampled during the ESI. Analytical results from these samples showed only trace levels (total concentrations up to 8 micrograms per liter [ug/L]) of organic contaminants. However, interviews with well owners revealed that only one of these four private wells may be used for drinking water; this well is apparently used infrequently to prepare tea.

PRC anticipates that trace level organic contamination found in private wells sampled during the ESI may be difficult to attribute to the site. Therefore, groundwater targets would be considered subject to potential contamination only. Additionally, it appears that relatively few people within 4 miles of the site use groundwater for drinking. Because the groundwater pathway score is expected to be minimal, PRC does not recommend scoring the groundwater pathway.

4.2 SURFACE WATER MIGRATION PATHWAY

Based on available information, PRC believes an observed release to surface water can be documented, but surface water targets can only be evaluated as potential targets. Characteristics of the surface water migration pathway and PRC's anticipated scoring approach are discussed below.

Perennial flow in Dead Creek begins downstream of CS-E in a portion of Dead Creek named in previous studies CS-F. CS-F and a large wetland within the segment are shown on Figure 1. An observed release of PCBs to Dead Creek is documented using a sediment sample collected in CS-F during IEPA's SSI. Sediment sample X111 was collected at the southeastern edge of the wetland. The sample location will be considered the probable point of entry (PPE). Sample X111 contained PCB Aroclor 1254 at a concentration of 4,486 mg/kg. Because there are no upstream samples to be used as background, a sediment sample from a nearby creek -- Old Prairie duPont Creek -- is used. PCBs were not detected in the background sediment sample collected from Old Prairie duPont Creek but PCBs were detected at high concentrations in several sources.

Although wetlands have been identified in the intermittent part of Dead Creek, these wetlands exist in creek segments that are being evaluated as sources. As a result, they are not targets subject to actual contamination.

PRC will score all surface water targets downstream of the PPE as subject to potential contamination. The single sediment and surface water samples collected in CS-F are insufficient to demonstrate adequate wetland frontage (at least 0.1 mile) in the target distance limit (TDL).

Dead Creek enters a culvert under an unpaved road south of the CS-F wetland and does not reappear at the surface. During the site visit, PRC observed the creek entering a concrete holding pond on the south side of the road. The U.S. Army Corps of Engineers 500-year levee is south of the pond. A lift station on the south side of the levee apparently controls discharge from the holding pond to Old Prairie duPont Creek. The lift station is about 20 feet tall and is constructed of concrete. Dead Creek discharge appears to enter Old Prairie duPont Creek when the holding pond reaches capacity and water is pumped to the lift station, which then fills and overflows. During the site visit, PRC

observed people fishing in Old Prairie duPont Creek from a railroad trestle upstream of the lift station.

According to the SSI, the Mississippi River is used for recreational and commercial fishing and contains habitat for the bald eagle, a federally endangered species. This habitat is within the TDL. PRC will verify this information and will contact state and local officials to obtain fish production values and additional information on sensitive environments associated with the surface water migration pathway.

IEPA collected a sediment sample in Old Prairie duPont Creek upstream of the confluence with Dead Creek that will be used as a background sample.

Old Prairie duPont Creek flows into the Cahokia Chute of the Mississippi River, which in turn empties into the main channel of the river about 1.5 miles downstream of the lift station. No samples are known to have been collected in the Cahokia Chute or downstream.

Additional wetlands may be within the TDL. PRC will obtain wetlands inventory maps to determine the wetland frontage subject to potential contamination. No drinking water intakes are within the TDL. Area municipalities are supplied by a surface water intake on the Mississippi River upstream of the Cahokia Chute.

PRC anticipates that the surface water pathway score will be driven by the human food chain threat because an observed release to surface water of a hazardous substance having a bioaccumulation potential factor value greater than 500 has occurred in the TDL and there is a fishery within the TDL. PRC anticipates that potential food chain and environmental targets will not contribute significantly to the pathway score because of the influence of dilution weight.

4.3 SOIL EXPOSURE PATHWAY

Based on available information, including the results of soil sampling and historical aerial photographs, two areas of observed contamination and numerous Level II targets have been identified within the Sauget Area 1 site. The first area consists of Source G, located immediately south of

Queeny Avenue; the second area consists of Source CS-C through CS-E. The following paragraphs describe the nature and extent of contamination at these areas as well as the targets associated with each area.

As described in Section 2.0, Site G is a landfill about 4.5 acres in size that received wastes from about 1950 to the 1970s. Surface soil (0 to 6 inches below ground surface [bgs]) and subsurface soil samples collected during the ESI confirm the presence of hazardous substances in soil at Source G. The background samples were discrete surface soil samples collected from the yards of four residences located on the east and west sides of Dead Creek within 1 mile of Source G.

A comparison of the surface soil samples collected at Source G and background surface soil samples shows that Source G has been contaminated by hazardous substances, including VOCs, SVOCs, PCBs, and various metals. Because VOCs and PCBs were not detected in the background soil samples, and the metals and PAHs were detected at concentrations three or more times greater than the background concentrations, these Source G samples are used to demonstrate an area of observed contamination. According to the HRS, documentation of observed contamination at any sampling point within a source (other than contaminated soil) establishes the entire source as an area of observed contamination.

The second area of observed contamination is located along Dead Creek. As described in Section 2.0, though shown on the topographic map as perennial, Dead Creek is actually an intermittent stream. Sources CS-A and CS-B are considered impoundments because they received wastes directly and contained water year round (CS-A) and nearly year round (CS-B). In contrast, Source CS-C through CS-E received contaminated run-off from Sources CS-A and CS-B and regularly dries out during portions of the year. Therefore, sediment samples collected from this source are considered soil samples. The analytical results from these samples were compared to the results from discrete soil samples collected from residential yards.

A comparison of soil samples within Source CS-C through CS-E and background soil samples from residential yards documents observed contamination from ESI sample location SD-21 through SSI sample location X110, a distance of about 2,400 feet. Specifically, numerous hazardous substances, including various metals, VOCs, PCBs, and PAHs and other SVOCs detected in soil samples from

within Source CS-C through CS-E, were found at concentrations three or more times greater than the concentrations measured in background samples, or were not detected in background samples. Because samples were collected only from the center of Dead Creek, the width of the area of observed contamination will be conservatively estimated as the width of the sampling device (about 4 inches). This width is multiplied by 2,400 feet to estimate the area of observed contamination at about 800 ft^2.

No residences, schools, day care facilities, workers, resources, or terrestrial sensitive environments are located on the same property and within 200 feet of Source G. Therefore, no resident population is associated with Site G, and the soil exposure targets are limited to the nearby population. Site G has been fenced since May 1987 and is not used for recreational purposes.

A resident population exposed to actual contamination exists for Source CS-C through CS-E. Soil sample location X110 (collected in CS-E during the SSI) is located on property owned by Parks College. Furthermore, contamination can be inferred from soil sample location X109, located near the northern boundary of the college property, south to soil sample location X110. Observed contamination can be documented at soil sample location X110, primarily because the concentrations of several metals, including cadmium, copper, lead, mercury, and zinc, are three or more times greater than background concentrations. Furthermore, the college's Assembly Hall, Aeronautical Engineering Building, Teacher Resource Center, and Lindbergh Library are located within 200 feet of sample location X110. The Aeronautical Engineering Building, Teacher Resource Center, and Lindbergh Library, while considered separate operations by the college, are internally connected and are considered a single building.

The college has 903 full-time and 144 part-time students who are considered resident individuals subject to Level II contamination. Contaminant concentrations do not exceed benchmarks for the soil exposure pathway.

The college also employs 80 full-time and 53 part-time faculty and 100 full-time and 24 part-time staff. However, available information is insufficient to determine how many of the faculty and staff work in the Assembly Hall, Aeronautical Engineering Building, Teacher Resource Center, and the

Lindbergh Library. Additional information is required before the number of workers can be determined. However, the number of workers is assumed to range from about 1 to 100.

The nearby population targets for the soil exposure pathway consist of about 1,000 students and 3,000 residents who go to school or live within 1 mile of the areas of observed contamination at Source G and Source CS-C through CS-E. Additional information, including the resident populations of several nearby apartment complexes, is required to determine the number of nearby population targets more accurately.

4.4 AIR MIGRATION PATHWAY

Based on available information, PRC believes that two observed releases to the air migration pathway can be documented for the Sauget Area 1 sources. The following paragraphs discuss PRC's approach to scoring the air pathway.

An observed release at Source G may be documented as a result of the ESI conducted by E&E in July 1987. During the ESI, E&E collected air samples at Source G on 2 days, July 16 and 17, 1987. PCBs were detected in an off-site sample collected on July 17. This sample was collected about 125 feet east of Source G. PCBs were not detected in the background air samples collected about 300 feet south-southwest of Source G. Furthermore, the analytical results of surface soil samples collected from Source G show extremely high levels of PCBs.

Based on the analytical results obtained from the air samples collected at and near Source G, PRC believes an observed release can be established via chemical analysis. However, the ESI data has not been validated; PRC is currently validating this data. If PRC's validation supports the analytical results presented in the ESI, PRC will score an observed release from Source G based on chemical analysis.

A second observed release may have occurred at Source I on September 20, 1989, when a drilling crew punctured a buried drum of unknown material. The five-man crew was drilling borings to install utility poles as part of a security system for the Cerro Copper facility. According to an IEPA

memorandum, the crew drilled through a drum at approximately 8 feet bgs, releasing an unknown amount of gas into the work space.

A crew member working directly over the hole, Mr. Robert Gussmann, immediately reported feeling dizziness and tightness in his chest. Mr. Gussmann was taken to the Cerro Copper infirmary where he was given oxygen and instructed to wash his hands of the soil he contacted when he tried to remove what appeared to be a barrel lid from the auger. Mr. Gussmann was then transported to Alexian Brothers Hospital in St. Louis for observation. Three other members of the drilling crew were also sent to and released from Alexian Brothers Hospital on September 21, 1989. Mr. Gussmann was released from the hospital on September 22, 1989.

Cerro Copper collected a soil sample from the boring on September 20, 1989, approximately 4 hours after Mr. Gussmann was sent to the infirmary. Cerro Copper then refilled the boring with drill cuttings and used a bulldozer to cover the boring with sand. The sample was sent to the Monsanto Krummrich facility for volatile and semivolatile organic analyses. Monsanto informed Cerro Copper that it could not "detect any specific peaks" using gas chromatographic equipment and could only identify contamination in the soil sample as being a heavy distillate with a "high boiling point." Monsanto returned the remaining portion of the sample to Cerro Copper.

Cerro Copper resampled the boring on September 22, 1989, and provided IEPA with a portion of this sample. Analytical results for these samples showed extremely elevated levels of chlorinated organics, including 2,4-dichlorophenol and 2,4,6-trichlorophenol, chlorinated anilines, PCBs, and pesticides. While PRC has not obtained the medical records or verified whether the analytical sampling results have been validated (steps necessary to document the exposures), an observed release at Source I may be demonstrated by direct observation based on the above-described events.

Because E&E's air sampling at Source G indicated the presence of off-site PCB contamination, the air pathway score will reflect that targets within 0.25 mile of Source G were exposed to Level II concentrations. PRC estimates that approximately 1,000 workers existed within the 0.25-mile distance category at the time samples were collected. On the other hand, the observed release at Source I would be based on the demonstrated adverse health effects suffered by Mr. Gussmann and the other three workers as a result of exposure to gaseous hazardous substances released at Source I.

Assuming the other three workers suffered adverse health effects, four people would be scored as Level II targets.

PRC must still obtain information from the U.S. Census Bureau to estimate the population subject to potential contamination from Sources G and I. The potentially exposed population includes residents, students, and workers living, attending school, and working at a distance greater than 0.25 mile to 4 miles from Source G and within 4 miles of Source I.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on documentation in EPA and IEPA files and additional information gathered during PRC's evaluation, the Sauget Area 1 site will receive an HRS score of 28.50 or greater. Therefore, PRC recommends that an HRS package be prepared for the site.

Observed soil contamination was identified at Source G and Source CS-C through CS-E. A resident population exposed to actual contamination can be documented for the second area; an area of observed contamination on Parks College property in Dead Creek. As a result, the soil exposure pathway contributes significantly to the overall site score.

It appears that two observed releases to air can be documented for Source G and Source I. The targets exposed to the contamination consist primarily of about 1,000 workers subject to Level II concentrations within 0.25 mile of Source G when air samples were collected in 1987 and 4 workers subject to Level II concentrations at Source I in 1989. Documentation of these air releases is subject to several considerations including (1) validating the Source G analytical air sampling data and (2) collecting medical records regarding the 1989 exposure incident at Source I. If either release can be adequately documented, the air migration pathway will contribute significantly to the overall site score.

All surface water targets will be scored based on potential contamination. PRC anticipates that the surface water migration pathway will be driven primarily by the human food chain threat. The surface water migration pathway will contribute moderately to the overall site score.

Based on the small groundwater target population and the anticipated difficulty in attributing contamination detected in private wells to the Sauget Area 1 site (based on the low concentrations detected), PRC recommends that the groundwater migration pathway not be included in the HRS package.

ATTACHMENT

SITE EVALUATION REPORT APPROVAL PAGE

SITE EVALUATION REPORT APPROVAL PAGE

Site Name:	Sauget Area 1
EPA I.D. No.:	Multiple
Authors:	Sandy Anagnostopoulos, Julie Kaiser, Christopher Scott, and Eric Morton PRC Environmental Management, Inc. 312/856-8700
Contractor Project Manager:	Eric Morton PRC Environmental Management, Inc. 312/856-8797

U.S. Environmental Protection Agency Approval:

Name: Title:

Signature: Date:

EPA Comments: